WATER TAP

WASHINGTON'S DRINKING WATER NEWSLETTER

Washington State Department of Health
Division of Environmental Health
Office of Drinking Water

Volume 19, #4 - September 2004

Ginny Stern, ODW, (standing) and water system representatives identify unique roles in crisis communications.

Drinking Water Risk Communication Workshops

Building effective communication among public health partners

This summer, the Office of Drinking Water (ODW) hosted three workshops that focused on improving communication during a drinking water emergency. Participants included water utility managers, engineers, water quality staff, communication leads, and local public health experts.

The workshops allowed ODW and some of its public health partners to explore the inter-jurisdictional coordination and communication issues that arise during a drinking water emergency. Discussion topics included a boil water notice, a power outage, loss of service, and a suspected disease incident.

A workshop was scheduled for each region with an overall theme of "Building An Effective Emergency Communication Framework." Each workshop provided a slightly different focus that reflected differences in regional character and the mix of participants. ODW worked with a contractor, Eco Resources Group, to facilitate the meetings and provide support and feedback on the workshops and lessons learned.

The Spokane area workshop brought together staff from three of the largest utilities in the area, county health department experts and regional ODW staff to discuss mutual roles, responsibilities and expectations arising from a drinking water emergency. By highlighting the strengths, resources and expertise available in a "typical" drinking water emergency, participants were able to identify a framework of resources and contacts to support effective and timely communication with the public and each other.

The Northwest regional workshop took a slightly different tack. The workshop brought representatives from King, Pierce and Snohomish counties; and Seattle, Tacoma, Everett and Redmond water utilities together with ODW staff to consider how this framework approach might support emergency communication

(Continued on Page 3)

Inside This Issue

The Director's Column

by Denise Addotta Clifford

The Office of Drinking Water's highest priority is responding to drinking water emergencies and working hand-in-hand with water systems when situations arise that might threaten public health.

I enjoyed meeting many of you this summer at emergency management and crisis communications workshops across the state. Having a plan, building relationships, and exploring the inter-jurisdictional coordination and communication issues that arise during a drinking water emergency, will make the work we do together in the future easier and more productive.

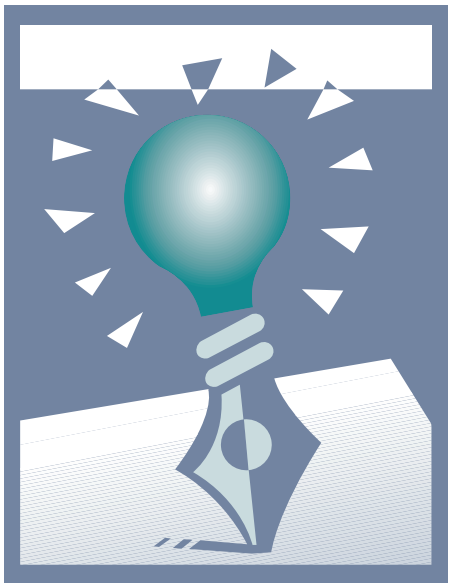
As fall approaches, systems must be even more vigilant with contaminant monitoring. The risk of contamination rises when heavy rains follow a long dry spell, especially for surface water.

Also, take a moment to review your public notification plan. Are you prepared to quickly notify your customers about actual or potential threats associated with their water? Can you help them make informed decisions affecting their health?

We have developed a number of tools to help you notify customers during a health emergency. These include the Coliform Health Advisory Packet and the recently completed Nitrate Health Advisory Packet. Both can be obtained by calling our regional offices or visiting our Web site at http://www.doh.wa.gov/ehp/dw/our_main_pages/dwflood.htm

I hope you can come and learn more about public notification and other topics, such as new regulations and priorities, at one of the 2004 Drinking Water Seminars this fall. This year we'll be covering new topics including a session on water system liability. The session will focus on the potential legal liabilities associated with owning, governing, managing and operating a public water system; customer expectations; and ways you can protect yourself with various insurance options. Afternoon breakout sessions are designed with both large and small systems in mind and will cover a range of issues. (See page 3 for more information.)

Also this fall, The Office of Drinking Water will participate in six Healthy Schools Workshops for school administrators and local public health officials. The workshops, hosted by the department's Environmental Health Division, will provide information on a variety of health and safety issues – including safe drinking water.



As you may have noticed in the news media, lead in school drinking water has been a concern this year after water in some Seattle public schools had high lead levels. Although we are not aware of any child with elevated blood-lead levels resulting from this exposure, lead contamination is always a concern, especially where children's health is potentially at risk.

We are pleased that the school district has isolated faucets and fountains with high lead levels and is providing alternative water where appropriate. We have discussed the results of the sampling with the district and continue to advise them on steps they can take to assure safe drinking water in their facilities.

It's all part of our goal of working with you and your customers to deliver safe, healthy and reliable drinking water.

(Risk Workshops – Continued from Page 1)

within a regional setting. The goal was to identify, in advance, key relationships and contacts among the local partners so that in a drinking water emergency, miscues, mistakes and missed opportunities can be avoided.

The Thurston County workshop examined the coordination issues associated with a complex drinking water emergency, impacting three adjacent utilities serving a large core population. By considering a number of hypothetical drinking water emergencies that impact multiple water systems at the same time, workshop participants were able to discuss their special communication and coordination needs.

These workshops were funded by a grant from the Washington State Revolving Fund. Eco Resources Group is working with ODW to turn the feedback and lessons learned into future training opportunities for all water systems operators.

Register now for 2004 Drinking Water Seminars

If you haven't registered for the 2004 Drinking Water Seminars, do it now before seating is no longer available.

You should have received a registration form in the mail, or you can go to our Web site at http://www.doh.wa.gov/ehp/dw/ to download a copy of the brochure. Registration must be received one week prior to attendance (see schedule).

The Drinking Water Seminars provide you with up-to-the-minute information to help you do your job – provide safe and reliable drinking water. The general session this year will include:

- Emerging Issues/Upcoming Regulatory Requirements
- Water System Liability
- The Municipal Water Law: The next dimension in water utility planning

2004 Drinking Water Seminars

September 29
Spokane - Red Lion at the Park

September 30
Wenatchee - Convention Center

October 18
Olympia - Red Lion

October 19
Silverdale - Red Lion

October 26
Mount Vernon - CottonTree Inn

Breakout sessions designed specifically for large and small water systems will also be presented. Topics this year include:

Large Systems	Small Systems
1. Water Use Efficiency Rule: Update and impacts on large systems	1. Water Use Efficiency Rule: Update and impacts on small systems
2. Emergency Response: Lessons learned from tabletop exercises	2. Nitrate in Drinking Water: Regulatory requirements for monitoring/reporting
3. Managing "Hot" Issues: Utility, state and local health coordination	3. Restructuring: Exploring alternatives to help systems improve technical, managerial and financial capacity

This course meets Washington State Department of Health's relevancy criteria for water works operator professional growth and has been approved for 0.6 CEU. Participants can receive 0.3 CEU for half-day attendance.

Don't forget to include your operator certification number on your registration form if you will be requesting CEU credits. Your registration cannot be processed without this information.

Check-in will be from 8 to 8:30 a.m. The seminars begin at 8:30 a.m. and end at 4:30 p.m., with lunch provided. A reduced registration fee of $30 is made possible with partial funding from the Office of Drinking Water.

For more information about the 2004 Drinking Water Seminars, please call Donna Lynch at (360) 236-3167 or e-mail donna.lynch@doh.wa.gov

Municipal Water Law implementation activities heat up

This summer, the outside air temperature is not the only thing heating up. The Office of Drinking Water's (ODW) efforts to implement the 2003 Municipal Water Law are in full boil. Action is heavy on three fronts: coordinating with the Department of Ecology on water right and watershed planning issues, developing a policy framework to ensure consistency of water system plans with locally adopted plans and ordinances, and developing a water use efficiency regulation.

Coordinating with Department of Ecology

ODW is working diligently with our partners at the Department of Ecology. Two work groups have been established to ensure better coordination between agencies. One is focused on water right issues and updating our existing Memorandum of Understanding. The other is sorting through issues related to watershed planning.

Another critical element of our relationship is the interaction between regional Ecology and Health employees that work together on a continuous basis to resolve water right issues as they arise.

Developing a policy framework

The Municipal Water Law (MWL) placed a great deal of emphasis on the relationship between ODW's planning process and locally adopted plans and ordinances. ODW is working with our Water Supply Advisory Committee (WSAC) on a policy framework to carry out its new responsibilities.

The framework will be in place by October. ODW staff is also "on the road," meeting one-on-one with local planning agencies and speaking at planning forums and conferences.

Developing a water efficiency regulation

The WSAC subcommittee has met five times to provide ODW with advice on the water use efficiency regulation. The subcommittee will continue its work through 2004.

To date, it has examined the general intent of the MWL, general water system planning requirements and the leak detection standard required by the MWL. Three work groups have been formed to address issues related to performance reporting and accountability, data collection and reporting, and cost effectiveness.

ODW expects the subcommittee to present a summary briefing paper to the WSAC in January.

For more information

Call Rich Hoey at (360) 236-3160 or e-mail rich.hoey@doh.wa.gov

Have you moved or changed employer?

Don't lose your operator certification

Every year, several operators lose their certification for non-payment simply because they do not keep us informed of their current mailing address. Certified water works operators are responsible for reporting any change of home address, employer, and home or work telephone number.

Be sure to include your certification number in all correspondence or phone messages.

Renewal notices

In November, we will be sending out operator certification renewal notices. When you receive your renewal notice, check all the information on it, make any needed corrections, and return it to us.

If you haven't received your notice by the end of November, call the number below.

Report changes

When you report a change of employer, be sure to include the Water Facilities Inventory number and your work telephone number (including area code). Please report changes by:

- **Mail:** Washington State Department of Health, Water Works Operator Certification Program, P.O. Box 47822, Olympia WA 98504-7822.
- **Telephone:** In Washington, call (800) 525-2536, extension 1. Out of state, call (360) 236-3141.
- **Web site:** Update your home address and telephone number at www.doh.wa.gov/ehp/dw/operatorcertification/op_form.htm You can also use this Web site to order application packets.

For more information

Call Larry Granish at (360) 236-3141 or e-mail larry.granish@doh.wa.gov

New arsenic standard being phased in

The 2001 federal Arsenic Rule requires Group A Community and Non-Transient Non-Community (NTNC) water systems to reduce the level of arsenic in their water from 50 ppb to 10 ppb. The rule is being phased in depending upon when the system or source started operating.

Systems that start operating after Jan. 23, 2004

New Group A Community and NTNC systems and new water sources (for existing Community and NTNC systems) that start operating after Jan. 23, 2004, are required to meet the new standard now. If sampling reveals levels of arsenic in excess of 10 ppb, these systems must submit an engineering report to the Office of Drinking Water (ODW) detailing how they will reduce arsenic levels.

Systems and sources in operation before Jan. 23, 2004

Group A Community and NTNC systems and water sources that were operating before Jan. 23 must meet the standard by January 2006. Quarterly testing will be required if their most recent sample exceeds 10 ppb. And, if the running annual average of the quarterly samples exceeds 10 ppb, actions must be taken to bring the source into compliance.

Other water systems

After some consideration, the State Board of Health decided not to extend the new arsenic standard to Group A Transient Non-Community (TNC) systems and Group B systems (which serve fewer than 25 people). Instead, ODW will provide these systems with educational materials about the potential effects of long-term exposure to low-levels of arsenic on human health.

Sample After Treatment

Compliance samples for inorganic chemicals, such as arsenic, must be collected after all treatment but before the water enters the distribution system. Sampling for arsenic after treatment is important since some treatment processes, such as iron removal filters, can remove arsenic.

Implementing the new standards

The new standard balances the known health effects of arsenic against the cost of removing it from drinking water. Increased safety comes at a cost. Affected systems may need to use an alternate source of water, or design and install new water treatment methods to remove arsenic from the water.

Recognizing this challenge, ODW staff developed fact sheets, wrote articles, and made presentations at public forums, advisory committee meetings and conferences to help water systems understand the new standard.

Arsenic Treatment for Small Systems, a publication designed to help very small systems comply with the new arsenic standard, is available by calling (360) 236-3164 or visiting the ODW Web site at http://www4.doh.wa.gov/dw/publications/
It includes several alternatives including:

Non-treatment Options

- Blending sources prior to the distribution system
- Inactivating problem sources
- Connecting to an adjacent water system
- Developing a new source

Treatment Options

- Iron Oxidation and Filtration
- Ion Exchange
- Iron and Aluminum-based Sorbents

For more information

For questions about arsenic monitoring, call the nearest ODW source monitoring specialist:

Eastern Region – Anita Waterman (509) 456-2475

Northwest Region – Steve Hulsman (253) 395-6777

Southwest Region – Belle Fuchs or Donna Freier (360) 586-5179

If you have questions about arsenic treatment, call Sam Perry at (253) 395-6755.

Arsenic is a natural element in the earth's crust that seeps into water as it flows through glacial and sedimentary rock. As such, it is primarily a groundwater issue. There are no known surface water systems in Washington that exceed the new standard.

Water sources in the Puget Sound region are more likely to exceed the standard than those in other parts of the state. However, arsenic at levels higher than 10 ppb have been found in wells in 33 of the state's 39 counties.

There is a small chance some people who drink water containing low levels of arsenic for many years could develop circulatory disease, cancer, or other health problems. Most types of cancer and circulatory disease are due to factors other than exposure to arsenic.

Regulatory News

Revisions proposed to the Operating Permit Fee

The Office of Drinking Water (ODW) is accepting comments on a proposal to incorporate an annual fee of 25 cents per connection into the Operating Permit Fee Schedule. The 2003 Legislature authorized ODW to begin collecting the fee last June to fund the water use efficiency activities of the Municipal Water Supply Act. The fee will remain in effect for four years, expiring in June 2007.

ODW filed a pre-proposal notice with the State Code Reviser in July. Comments will be accepted through October.

Stakeholders will be involved in the rule-making process through the Water Supply Advisory Committee and the Washington Water Utility Council. In addition, the draft rule is available for comment upon request and is available on the ODW Web site at: http://www.doh.wa.gov/ehp/dw/our_main_pages/regula.htm

Regulation timeline:

- Notice of intent filed – July 2004
- Develop regulation – August 2004
- Stakeholder Comment Period – September through October 2004
- Public Hearing – November 2004
- Final Adoption – December 2004

For more information about the Operating Permit rule, call Theresa Phillips, Program Development Section, at (360) 236-3147 or e-mail theresa.phillips@doh.wa.gov

For more information on Water Use Efficiency activities, visit the ODW Web site at http://www.doh.wa.gov/ehp/dw/municipal_water/water_use_efficiency_rule.htm

Drinking Water State Revolving Fund

Intended Use Plan to be reviewed

The Office of Drinking Water (ODW) will present its plan to distribute State Revolving Fund project loan and set-aside funds at a public hearing from 10:30 to 11 a.m., Oct. 12 at Building 3, 7171 Cleanwater Lane SW in Tumwater.

Public comments on the draft Intended Use Plan will be collected from Sept. 15 to Oct. 15.

Drinking Water State Revolving Funds are loaned to municipal and private water systems for projects that improve drinking water infrastructure and increase public health protection.

ODW, the Public Works Board and the Department of Community, Trade and Economic Development jointly manage the revolving loan fund. ODW reviews applications and prioritizes those that are eligible for funding.

Of 66 applications received this year, 64 projects from 58 water systems are considered eligible. The projects are worth more than $55 million in loans.

The draft Intended Use Plan is posted on the ODW Web site at http://www.doh.wa.gov/ehp/dw/Our_Main_Pages/dwsrf.htm and available at the State Library in Olympia.

To submit comments or obtain a copy of the plan, call Chris Gagnon (360) 236-3095 or e-mail chris.gagnon@doh.wa.gov

Mail may be sent to Gagnon at Department of Health, Office of Drinking Water, PO Box 47822, Olympia WA 98504-7822.

REMINDER... ABC Exams will change in October

The Association of Boards of Certification (ABC) has revised the standard 100-question exams the Office of Drinking Water (ODW) uses to certify water works operators.

The revision drops personnel questions from the exams and splits the Formula/Conversion Table into separate Water and Wastewater Tables.

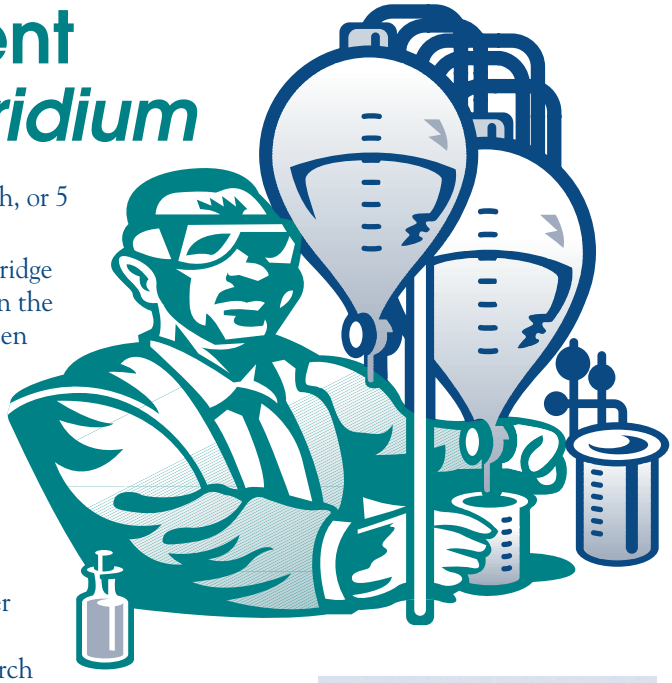
Most important, the revision closes a discrepancy that allowed water operators in some states to reach the highest level of certification by answering 100 questions, while those in other states must answer 400.

The new multiple-entry exams include:

Class 1	100 questions
Class 2	120 questions
Class 3	150 questions
Class 4	180 questions

For a detailed description of each exam, please refer to the Water Works Certification Program Guidelines at http://www.doh.wa.gov/ehp/dw/our_main_pages/opcertification.htm, or call (360) 236-3141 or (800) 525-2536 extension 1.

New rule to help prevent illness from *Cryptosporidium*



The **Long Term 1 Enhanced Surface Water Treatment Rule** goes into effect in January 2005. Designed to prevent gastrointestinal illnesses from *Cryptosporidium* and other pathogens through improved filtration, the rule applies to public water systems serving less than 10,000 people that use surface water or groundwater under the direct influence of surface water.

The rule requires filtered water systems to physically remove 99 percent (2-log) of *Cryptosporidium*. This is similar to requirements surface water systems serving 10,000 or more people have been required to meet since January 2002.

To ensure 99 percent of *Cryptosporidium* is removed, water systems are required to continuously monitor and record turbidity (at equal intervals of at least 4 hours) from the system's combined filter effluent (CFE) and comply with enhanced turbidity performance requirements.

However, systems that use slow sand or alternate filtration technology may reduce filtered water turbidity monitoring to one grab sample per day with approval from the Office of Drinking Water (ODW).

The specific CFE turbidity performance requirements depend on the type of filtration used by the system.

Conventional, direct, or in-line filtration

- < 0.3 NTU (Nephelometric Turbidity Units) in at least 95 percent of measurements taken each month
- 1.0 NTU maximum turbidity

Slow sand and diatomaceous earth filtration

- Continue to meet existing turbidity limits
- < 1.0 NTU in at least 95 percent of measurements taken each month
- 5.0 NTU maximum turbidity

Alternate technologies

- Turbidity levels as determined by ODW.
- State-set limits must not exceed 1 NTU in at least 95 percent of measurements taken each month, or 5 NTU maximum.
- The bag and cartridge filters now used in the state have not been demonstrated to remove 99 percent of *Cryptosporidium*. The U.S. Environmental Protection Agency and other organizations are conducting research to determine what bag and cartridge filters will meet the requirements of the rule. ODW will notify systems of the results when they are available.

In addition to CFE monitoring, conventional, direct, and in-line filtration systems must conduct continuous turbidity monitoring (sampling at least every 15 minutes) from the finished water for each filter. Systems must report instances of high individual filter effluent (IFE) turbidity to ODW. And, based on performance triggers, they must take prescribed actions to identify and correct the cause(s). This requirement will allow systems to identify poor-performing filters that might be masked by an overall low CFE turbidity. Systems with two or fewer filters may conduct continuous monitoring of CFE turbidity instead of the IFE turbidity monitoring. IFE monitoring and required follow-up actions will be discussed in detail in the next issue of *Water Tap*.

For more information

Please contact your regional surface water program lead:

Eastern Region: Michael Wilson (509) 456-3186

Northwest Region: Nancy Feagin (253) 395-6765

Southwest Region: Jim McCauley (360) 664-8734

Cryptosporidium is a one-celled parasite that can cause a gastrointestinal illness called cryptosporidiosis.

Cryptosporidium occurs in the feces of infected animals or humans. It is environmentally resistant and may survive outside the body for long periods of time. To become infected, a person must consume contaminated food or water.

Cryptosporidiosis became a reportable illness in Washington in 2001. Originally considered a parasite of animals, reptiles and birds, it first was detected as a source of illness for humans in 1976. Health officials now believe Cryptosporidium has been causing human illnesses for a long time, but it was overlooked due to difficulties in testing and diagnosis.

Results of two customer service surveys are in

Early this year, the Office of Drinking Water (ODW) completed two customer satisfaction surveys targeting specific Operator Certification Program audiences: public water system owners and certified water works operators.

Both surveys were designed to get feedback on the current quality of ODW outreach and communications and to identify areas for improvement.

We mailed the surveys directly to our target audiences and provided self-addressed, postage-paid return envelopes to increase the response rate. Surveys were also offered on the Web site as a time and cost saving effort.

What we learned from water system owners

The water system owner survey provided an opportunity to rate customer satisfaction with the Operator Certification Program.

A total of 1,940 surveys were distributed, and 991 were returned, for a response rate of 51 percent. Such a high response rate reflects a high level of program interest among water system owners.

Of those who responded, 87 percent have served in their positions two or more years. This indicates good stability across the range of small public water systems, and a high likelihood that most respondents have interacted in some way with the Operator Certification Program.

Nearly two-thirds of respondents say Operator Certification staff is doing "above average" or better in keeping them apprised of program requirements; and almost 90 percent say staff does at least an "average" or better job.

Survey results from water system owners

Operator Certification component	% of responses average or above
Understanding the Certification Program	91%
Quality and Clarity of Information	91%
Helpfulness of Staff	89%
Promptness of Staff	88%
User-Friendliness of Forms & Applications	88%
Conversations With Operator Certification Staff	85%

(Note: 5% to 12% responded "not sure" to each of the above questions, indicating that the respondent had not had contact with Operator Certification staff.)

Communication and Outreach Efforts	% of responses average or above
Water Tap News Articles	96%
Letters	89%
Renewal Notice	85%
Application Packet	81% (14% "not sure")
Toll-free Telephone Line	74% (20% "not sure")
Operator Certification Web Site	52% (43% "not sure")

Feedback from water system operators

The certified water works operator survey measured customer satisfaction with both Operator Certification Program staff at ODW and Certification Services staff at the Washington Environmental Training Center (WETRC).

A total of 3,820 surveys were distributed, and 1,073 were returned, for a response rate of just over 28 percent. The lower response rate may be due to overlap, with some customers serving as both owner and certified operator not understanding that the two surveys focused on different aspects of service delivery.

A majority of respondents (70%) have been certified for more than three years. This may explain why such a high number of respondents (91%) indicate they have an "average" or better understanding of program requirements.

Certified operators gave staff at ODW and WETRC high marks for promptness in responding to inquiries. About 88 percent rated the promptness of ODW staff "average" or better; and 84 percent said the same for staff at WETRC.

Survey results from water system operators

Operator Certification component	% of responses average or above
Renewal Process and Deadlines	91%
Exam Application Process and Deadlines	88%
Who to Contact with Certification Program Questions	86%
Professional Growth Reporting Deadlines	84%
Who to Contact with Professional Growth Questions	81%
Relevancy Requirements for Operator Training	81%

Communication and Outreach Efforts	% of responses average or above
Water Tap News Articles	94%
Exam Application and Instructions	94%
Certification Renewal Notice	88%
Certification Program Guidelines	86%
Professional Growth Reminder Notification	79%
Professional Growth Completion Notification	78%
Toll-free Telephone Line	78% (12% "not sure")
Operator Certification Web Site	62% (26% "not sure")

Addressing areas of improvement

Even with the high approval rating, we identified several areas where we will be exploring opportunities to further enhance the quality of our services:

- Continue to refine ODW relevancy criteria for operator training courses. And, make operators aware that training must be directly relevant to the operation or maintenance of a water system, and influence water quality, water supply or public health protection.
- Improve awareness of available services. We will use *Water Tap* and other outreach to ensure systems and their operators are aware of our Web site (http://www.doh.wa.gov/ehp/dw/default.htm) and toll-free phone number (800) 525-2536.
- Provide information on "distance education" opportunities and requirements. More than half of respondents did not understand distance education requirements. Distance education generally includes correspondence courses, online, and CD-ROM training. All distance education courses must meet ODW's evaluation criteria and be preapproved through WETRC. Operators must complete approved distance education courses following the ODW guidelines available from WETRC, including monitored examinations.
- Provide information on how decisions are made about the professional growth program and the evaluation of training courses used to meet professional growth requirements. While WETRC is responsible for the day-to-day administration of the professional growth program, including the course evaluation and CEU assignment process, it must follow the policies, procedures and guidelines established by ODW.

  A subcommittee of our Water Works Operator Certification Advisory Committee may evaluate courses, using ODW criteria, to determine if course content is relevant to a water system's operational needs for CEU. The Advisory Committee hears certain appeals and makes recommendations to ODW.
- Improve operators' access to their professional growth records.
- Continue reinforcing the concept that the system must notify ODW staff, in writing, when they change mailing addresses. Nearly one-third of respondents were not aware of this requirement.

The Office of Drinking Water and the Washington Environmental Training Center are proud of the survey results and look forward to continuing to set a high standard of customer service. The complete survey report is on the ODW Web site at http://www.doh.wa.gov/ehp/dw/survey_results.htm

If you have questions, please call Cheryl Bergener at (360) 236-3137 or (800) 525-2536, extension 4.

2003 Water System Acquisition and Rehabilitation Program

14 water systems offered funding contracts

Contracts have been offered to 14 jurisdictions that applied for funding from the 2003 Water System Acquisition and Rehabilitation Program. Projects are expected to be completed two years after contracts have been executed.

The program was created with $4 million the 2003 Legislature committed to help municipal water systems acquire and rehabilitate other water systems with water quality problems. Some of the troubled systems have deteriorated to the point that public health is a concern.

Future funding for the program is unknown at this time.

Applications were received last November. Contracts have been offered to the applicants with the highest scoring projects. Another 13 project applications fell below the funding cut-off.

The grant program helps local governments maintain safe and reliable drinking water systems throughout the state. It is managed jointly by the Department of Health, the Public Works Board, and the Department of Community, Trade, and Economic Development.

For more information, please call Chris Gagnon (360) 236-3095 or e-mail chris.gagnon@doh.wa.gov

Northwest Region: Kent, WA

Cedar River Water and Sewer District in King County – $984,223 to acquire the Dorre Don Water System. The project will abandon Dorre Don's existing spring source and allow for a looped system through the area. This will reduce the number of individual wells and small water systems, and redundant water supply and distribution infrastructure.

Juniper Beach Water District in Island County – $19,194 to acquire the Second Chance Thrift Store's water system. The project will replace a water supply that has an excess of arsenic.

Southwest Region:
Olympia, WA
(360) 664-0768

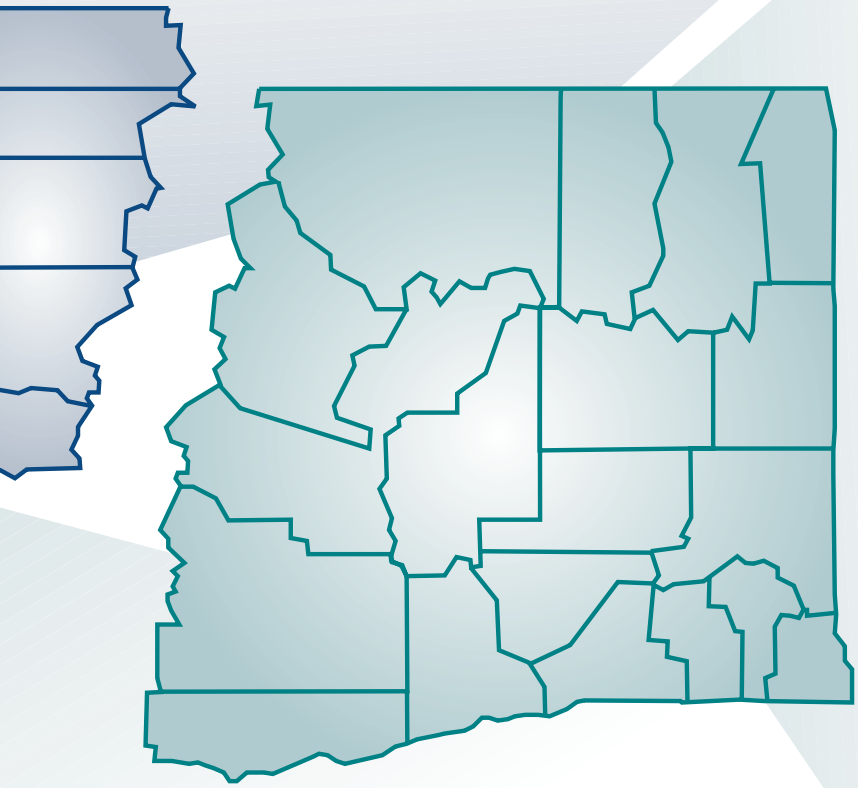
City of Chehalis in Lewis County – $469,773 to allow the Newaukum Village Water System to connect to the City of Chehalis' water system. The project will provide Newaukum Village customers with safe reliable water. This will remedy several boil water notices, water outages and backflow hazards that occurred during the past year.

City of Olympia in Thurston County – $203,625 to acquire and rehabilitate the Woodland Park Utility Association water system. The project may allow the city to lower water rates due to the elimination of an existing system with high operation and maintenance costs.

A • (253) 396-6760

Skagit County P.U.D. #1 – $122,009 to acquire and rehabilitate the Skagit View Village system. The project will bring the system into compliance with the Lead and Copper Rule of the Safe Drinking Water Act. It includes installing corrosion control treatment and a treated drinking water reservoir.

Skagit County P.U.D. #1 – $142,712 to form a satellite water system that will provide drinking water to several residences and commercial properties in the Marblemount community. The project will decommission shallow wells to avoid drinking water contamination.



Whatcom County P.U.D. #1 – $375,826 to acquire and rehabilitate water systems at three large facilities. The project will supply potable water to some 2,000 people.

Eastern Region:

Spokane, WA
(509) 456-3115

Pasadena Park Irrigation District #17 in Spokane County – $203,423 to extend its water main to Orchard Prairie School District #123. The project will supply the school with water, consolidate the school system into the district and decommission the school well, which is contaminated with nitrate.

Stevens County P.U.D. – $64,520 to acquire and rehabilitate the Dolomite Water System. The project will include source reconstruction, treatment, and improved metering and controls.

Stevens County P.U.D. – $220,300 to acquire and rehabilitate Chattaroy Springs West Water District #11, which serves a rural subdivision in northeast Spokane County. The project will allow customers to abandon their low volume spring water source and connect to a water system with lower operation and maintenance costs.

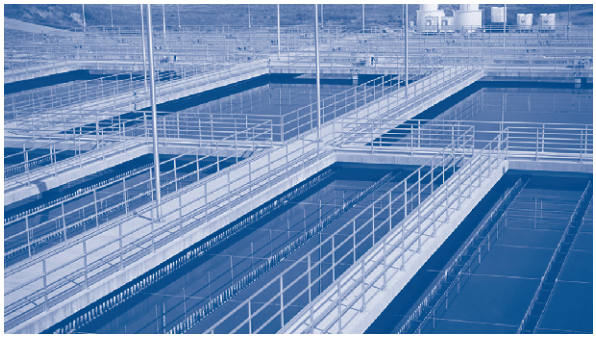
Jefferson County P.U.D. #1 – $298,920 to consolidate, upgrade and eliminate approximately six problematic Group A water systems, several Group B systems, and numerous individual wells in the Quilcene area. The project will provide safe and reliable water to the rural community, limit the need for future systems, and provide PUD management.

Mason County P.U.D. #1 – $101,000 to acquire and rehabilitate Arcadia Estates Water System. The project will provide source improvements and includes replacement of a redwood storage tank susceptible to problems with bacteria.

Mason County P.U.D. #1 – $169,750 to acquire and rehabilitate Canal Beach Tracts Mutual Water Company and Glen Ayr Canal Resort, LLC. The project includes a new water source, storage reservoir, emergency power and distribution. It remedies existing wells vulnerable to flooding and surface water influence.

Silverdale Water District #16 in Kitsap County – $624,725 to acquire and rehabilitate three water systems. The project provides a water main extension. It also abandons inadequate treatment systems and existing water sources and reservoirs with a history of bacterial contamination, elevated iron, manganese, and arsenic.

Ecology issues a general wastewater permit for water treatment plants



The state Department of Ecology reinstated its wastewater discharge general permit for water treatment plants, effective July 16. Water treatment plants that apply filtration processes, discharge to surface water, and have the capacity to produce at least 50,000 gallons per day of drinking water require coverage under this general permit.

Water treatment plants are facilities that produce drinking water. A wastewater discharge permit is required when the treatment of raw water results in a discharge of wastewater to surface water.

A general permit is similar to an individual wastewater discharge permit, except it is written for a group of facilities that are very similar in processes and wastewater characteristics.

"A single permit that looks the same for all facilities – instead of a separate permit tailored to each individual facility – will save time and money for Ecology and the permitted facility, as well as protect water quality," says Carey Cholski, an environmental specialist at Ecology.

Eligible facilities

The general permit only provides coverage for water treatment plants that produce wastewater from filtration processes.

In Washington, more than 500 water treatment plants use some form of filtration to treat drinking water. However, only 10 percent of these facilities are large enough to produce 50,000 gallons of drinking water a day. Of those, about half discharge into surface water and the rest discharge to land or a sewage treatment plant.

The general permit approach

Water treatment filtration plants are appropriate for the general permit approach because they have very similar treatment processes and wastewater discharges. The general permit provides a single set of conditions that is fair to the water treatment facilities and provides adequate environmental protection.

A general permit is designed to provide environmental protection under conditions typical for the covered industrial group. When conditions at a particular facility are not typical of the industry group, or they are beyond the scope of the general permit, an individual permit may be required.

Applying for coverage

Eligible facilities must complete an application for coverage and submit it to Department of Ecology. For a copy of the application, or answers to questions, please contact the Permit Coordinator at the nearest Ecology regional office:

Northwest — Bellevue (425) 649-7000
Southwest — Olympia (360) 407-6300
Central — Yakima (509) 575-2490
Eastern — Spokane (509) 329-3400

For more information

Visit Ecology's Web site at http://www.ecy.wa.gov/programs/wq/wtp/index.html
You may also call Carey Cholski at (360) 407-6279 or e-mail cgru461@ecy.wa.gov

Sentry Internet:
A tool for public water system data review

The Office of Drinking Water (ODW) uses *Sentry*, a Web-based computer application, to track Washington's 17,000+ public water systems.

Now we are building a new application that can be used by local health jurisdictions (LHJs), public water systems and the public. The system will be called *Sentry Internet*. And, if things stay on track, we expect it to be available for your use by 2005.

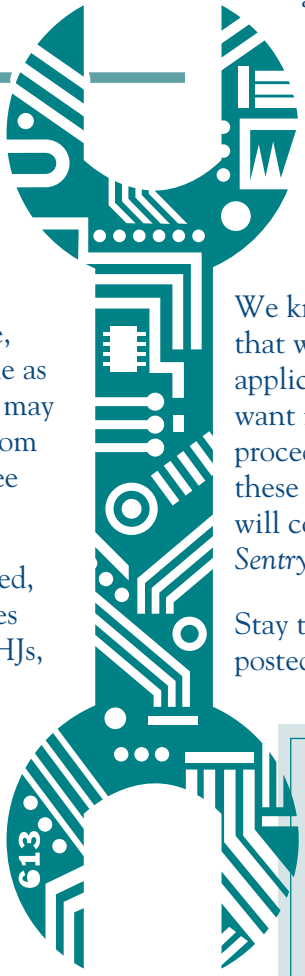
Sentry Internet will allow the public to look up information about a given water system, such as inventory characteristics and water quality sampling results.

Before we started coding the application, we sent an on-line survey to all 35 LHJs. The survey asked about the type and frequency of questions normally asked of their water program staff. Also included were questions on the type of data LHJs request from ODW staff, and an open-ended question about what they would want from a data system application.

ODW staff analyzed the survey data and developed mock-up drawings of what a typical computer screen might look like. During this time, suggestions were made as to how an individual may be able to navigate from screen-to-screen to see different sets of data.

When this was finished, a set of representatives from big and small LHJs, representing east and west sides of the state, journeyed to Olympia to view the mock-ups in a demonstration on how ODW believed they would want it to work.

Using feedback and questions from the LHJs, the water system data was further refined. Now, with a focus on what the end product should look like, ODW is actually coding the *Sentry Internet*.



The project plan calls for initial testing of the application by ODW staff and then inviting representatives from the LHJs to come back for testing. We believe this will happen this month. The application will be modified based on feedback and suggestions made during this testing period.

Deployment would take place about the end of the year.

We know from experience that with the launch of a new application, the end-users soon want more. We have established a procedure to capture and prioritize these "enhancements" that surely will come from you once you use *Sentry Internet*.

Stay tuned! We will keep you posted.

We value the free-flow of information, both internally and externally"

One of the Office of Drinking Water's Core Values

We'd like your feedback

If you've attended any of the Drinking Water-sponsored courses designed for small water system operators, we'd like your feedback (good or bad). Please call Paula Smith at (360) 236-3114 or e-mail paula.smith@doh.wa.gov

We are also always looking for subject areas in which you would like to see training provided.

Surface Water Coliform Monitoring

Measuring Microbial Risk

All water systems are required to monitor for coliform bacteria in their distribution systems. In addition, water systems that use surface water sources are required to routinely measure the number of fecal coliform in their source water.

Surface water sources can experience significant changes in water quality during the year that can be associated with increased numbers of pathogens.

Routine fecal coliform monitoring measures the microbial risk of the source water so appropriate action may be taken if there are problems with the treatment process.

Conducting required surface water coliform monitoring might also help water systems comply with the proposed Long Term 2 Enhanced Surface Water Treatment Rule, which the U.S. Environmental Protection Agency plans to finalize in 2005.

To meet coliform monitoring requirements, filtered water systems must:

- Collect source water samples before chemicals are added.
- Analyze for fecal coliform density (bacteria/100 mL) rather than presence/absence.
- Collect at least one sample per month. Water systems that serve more than 2,500 people are required to collect more samples, up to one sample per day, depending upon the size of the system.

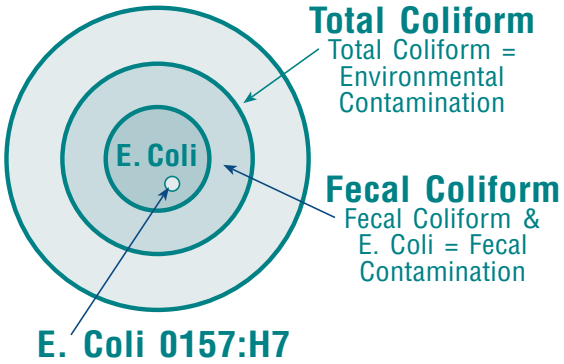
Unfiltered water systems have more stringent fecal coliform monitoring requirements.

They must collect multiple samples each week, with the total number of samples dependent on the size of the system. Whenever raw water turbidity is greater than or equal to 1.0 NTU, a fecal density sample must be taken. At least 90 percent of the total number of fecal coliform density samples taken within a six month period must have less than 20 fecal coliform bacteria/100mL.

For more information, contact your regional surface water program lead:

Eastern Region: Michael Wilson (509) 456-3186
Northwest Region: Nancy Feagin (253) 395-6765
Southwest Region: Jim McCauley (360) 664-8734

Total Coliform, Fecal Coliform and E. Coli



All water systems are required to monitor for total coliform bacteria.

If testing detects fecal coliform or E. coli in the distribution system, there is a great risk the water could make people sick. Fecal coliform appear in large quantities in the feces of animals and people. E. coli is a type of fecal coliform.

Most E. coli are harmless. However, some strains could cause illness. E. coli in a drinking water sample almost always indicates recent fecal contamination – meaning there is a greater risk pathogens are present.

New video will help you keep your drinking water safe

Craig Downs, ODW, (right) interviews Ron Gibson, Town of Rainier public works director.

Water. There is nothing more important to the health of a community than safe, reliable drinking water. So, how does a water system operator, manager, or board member prevent waterborne disease outbreaks?

You will find tips to keep your water safe in a new video the Office of Drinking Water (ODW) produced with funds from the U.S. Environmental Protection Agency.

The video will be mailed to all Group A public water systems this fall. Featuring interviews with water system operators, board members and ODW staff, it covers topics such as:

- The history of waterborne disease outbreaks.
- Why drinking water systems are a key part of the public health system.
- The three key elements of keeping your water safe.
- Where to go for additional information.

The responsibilities associated with providing safe and reliable drinking water have never been greater. There are about 170,000 public water systems in the U.S. providing water to more than 250 million people, including 5 million in Washington. Every hour of every day, these consumers rely on water systems to deliver safe and reliable drinking water.

But, safe drinking water doesn't just happen. Waterborne disease outbreaks continue to occur even with our current rules and regulations in place.

Preventing illness takes a lot of work on behalf of water system operators, board members, various government agencies and consumers. We hope you will use this video as a resource to help ensure your customers receive safe and reliable drinking water.

For a copy of the video or more information, please call Ronni Woolrich at (360) 236-3092 or e-mail ronni.woolrich@doh.wa.gov

Infrastructure Assistance Coordinating Council

Fall Conference in November

The Infrastructure Assistance Coordinating Council (IACC) will hold its fall conference Nov. 2-4 at the West Coast Wenatchee Hotel. This popular conference includes various training and program sessions related to infrastructure, funding and technical assistance.

Pre-registered technical teams will include staff from a variety of federal and state programs that will join community members to discuss specific infrastructure problems for their communities.

IACC is a nonprofit organization made up of staff from state and federal agencies, local government associations, nonprofit technical assistance firms, tribes and universities. It helps Washington communities identify and obtain resources needed to develop, improve and maintain public works programs.

For more information on technical teams, the conference, or to register, call Bill Cole, Public Works Board, at (360) 586-4125. The IACC database is your resource for locating infrastructure funding or technical assistance in Washington state. The database is on the Internet at http://www.infrafunding.wa.gov

Are you following your operations and maintenance plan?

Earlier this year, a roof collapsed into a 1 million gallon concrete reservoir serving a public water system of 4,600 connections in southwest Washington. At the same time, the reservoir isolation valve refused to close and operators had to find another way to ensure gravity flow from the damaged tank did not enter the distribution system.

In the days that followed, the reservoir had to be isolated without contaminating the drinking water supply. A diver finally was able to insert inflatable plugs in the inflow/outflow pipe. In the interim operators were diverted from their regular jobs for about a week as they manually monitored chlorine residuals in the surrounding area to determine if the contaminated water was contained.

Fortunately, the certified operators were able to prevent contaminants from entering their water system. But, the problem continues to affect utility operations. Operators were on alert for water shortages throughout the summer and will remain on alert for unusual conditions until the roof is replaced in early 2005.

This system did have an operations and maintenance plan in an approved Water System Plan, including a routine valve exercise program. Repair of a known leaking valve had been delayed, and that significantly complicated the response to this emergency.

Check your operations and maintenance plan

If your water system does not have an operations and maintenance (O&M) plan, start designing one today, and be sure to keep records. A good O&M plan will identify requirements and include schedules and procedures for preventive maintenance of water system components, including reservoirs and valves.

As demonstrated by this incident, your O&M plan should include:

- A schedule for structural inspections of reservoirs.
- A valve exercise program.
- An emergency response plan.

Structural inspection of reservoirs

Both interior and exterior inspections are important to protect the quality of water and ensure the physical integrity and security of the storage tank. The frequency and type of inspection are driven by many factors specific to each storage facility.

Factors may include the type of storage tank (e.g., standpipe, ground level tank), the potential for vandalism, the age and condition of the tank, your cleaning program or maintenance history, the ability to take the tank off-line, your water quality history, funding, and staffing levels.

- **Routine Inspection:** On a daily or weekly basis, an external visual inspection of reservoir and site.
- **Periodic Inspection:** On a monthly or quarterly basis, check areas and items not normally accessible during routine inspections and focus on potential areas of concern.
- **Comprehensive Inspection:** Every three to seven years, conduct a detailed assessment of structural and sanitary conditions of all reservoir and site components.

Valve Maintenance

Valves, those devices that regulate, stop or start water flow in the distribution system, are an integral part of a drinking water distribution system. Although most water system operators know they should use a valve-exercising program to ensure valves are functioning properly, many do not.

You can avoid damages, inconvenience to customers and even public health problems by having a valve maintenance program. Taking care of problems, such as the one in Southwest Washington, is expensive – often taking more time and money than setting up and following a valve exercise and repair program.

The benefits of a valve exercise program include:

- Knowing where all your valves are.
- Knowing that the valves work.
- Being able to immediately isolate main breaks (resulting in lower water losses and the least possible disruption of service to customers).
- Extending valve life.
- Reducing employee overtime dealing with emergency repairs.
- Being more confident in the reliability of your system.

Emergency Planning

Have procedures in place to quickly take the facility out of service. At a minimum, prepare for each of the following scenarios:

- Breach of system security
- Water quality contamination
- Hazardous chemical release
- Loss of disinfection residual
- Loss of structural integrity

For more information

Look for publications on emergency management and water system operations on the Office of Drinking Water Web site at www.doh.wa.gov/ehp/dw

Tips for Turbidimeter Installations

Guidance for Filtered Systems Using Surface Water

Editor's note: This is the second article in a two-part series. It discusses the importance of taking turbidity meter readings in a location truly representative of your filtered water. To learn about on-line turbidimeter calibration requirements, see the June 2004 issue of Water Tap.

A properly calibrated and located on-line turbidimeter will accurately measure the clarity of drinking water, and provide an important "window" through which all can reliably judge the effectiveness of your treatment process.

Turbidity measurement is an important indicator of filtration efficiency for removal of pathogens, such as *Giardia* and *Cryptosporidium*, and other particles. Besides potentially indicating pathogen breakthrough, high turbidity can interfere with disinfection.

Surface water treatment regulations require two types of filtered water turbidity monitoring for most plants:

- **Combined**: The monitoring of the blended product of all of the operating filters in a plant.
- **Individual**: The monitoring of the water produced by a filter.

Combined filtered water sampling

You are responsible for determining where to take samples and ensuring that the samples are representative of the water quality being produced.

Because of differences in filter piping and clearwell configuration, the exact location for collection of a representative sample of filtered water may vary from plant to plant.

However, unless circumstances in the water system make another location(s) more representative, turbidity samples should be collected from a point immediately after the confluence of flow from all the filters, and immediately prior to the clearwell. This is known as the *combined filter effluent* sample (CFE).

In some facilities a CFE sample may be physically impossible to collect. This may occur if there is more than one clearwell, or if there is no common header pipe and filters individually empty into a clearwell.

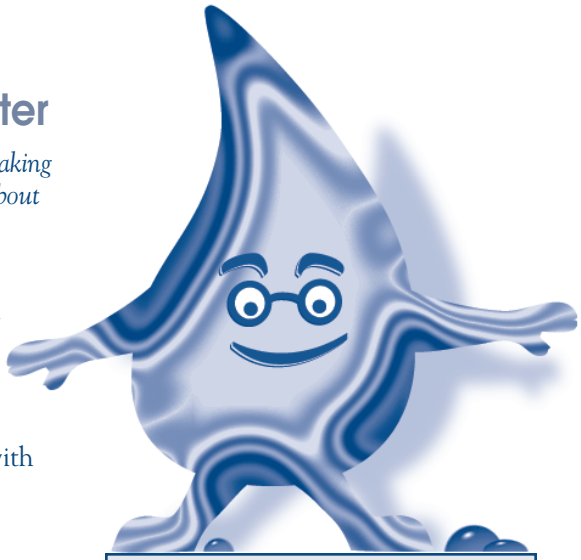
If that is the case, the following alternatives may be considered (in order of preference):

- Take a sample from a line pumped from a representative location within the clearwell.
- Take a sample from any pipe that gets water from the clearwell.
- Take an average of individual filter turbidity readings.
- Report the highest individual filter turbidity.
- Combine filter turbidity sample lines (equivalent flow rates).

Be sure to choose a sampling location that represents the quality of your filtered water. Failure to perform this monitoring obligation properly, or deliberately reporting data only from sampling sites that are known to be under the turbidity limits of the regulations, could result in a monitoring violation.

Individual filtered water sampling

Turbidity samples for an individual filter should be collected from the effluent piping for that filter, prior to connection with the piping from any other filter. Choose a location that will have positive flow throughout the range of filter headloss experienced.



Dr. Drip Says:

"When installing your on-line turbidimeter, remember, 'move the signal, not the sample!' Put your meter close to the sample site. A short sample line lessens the chance for sample deterioration and lets the water you are producing look its truest best. A few extra feet of wire can bring the recorder signal to a spot convenient for routine monitoring."

Other tips from Dr. Drip:

- Install a relay to interrupt the signal to the recorder whenever the filters are off-line.
- Use small diameter sample tubing. It lessens meter response time.
- Check that your sample tap projects into the center of the process pipe, avoiding air or sediment.
- When possible avoid pumping turbidity samples. Use gravity instead.
- Be sure there is adequate flow to your meter (check the owner's manual).
- Flush your sample lines at least quarterly.

Training and Education Calendar

Date	Topics	Location	Contact	Phone #	Cost/CEU
Oct 5-6	Competent Person Cave in Protection	Richland	WETRC	1-800-562-0858	$210/1.4
Oct 5	Cross Connection Control and Backflow Basics*	Port Angeles	ERWOW	1-800-272-5981	$15/0.7*
Oct 6	Cross Connection Control and Backflow Basics*	Battle Ground	ERWOW	1-800-272-5981	$15/0.7*
Oct 6	Anatomy of a Service Connection	Ritzville	ERWOW	1-800-272-5981	Call/TBD
Oct 6	Potable Water Service Connections*	Ritzville	ERWOW	1-800-272-5981	$15/0.7*
Oct 6	Service Connections*	Ritzville	ERWOW	1-800-272-5981	$15/0.7*
Oct 7	Anatomy of a Service Connection	Wenatchee	ERWOW	1-800-272-5981	Call/TBD
Oct 7-8	Advanced Backflow and Cross Connection Control*	Kelso	ERWOW	1-800-272-5981	$15/0.7*
Oct 7	Potable Water Service Connections*	Wenatchee	ERWOW	1-800-272-5981	$15/0.7*
Oct 7	Service Connections*	Wenatchee	ERWOW	1-800-272-5981	$15/0.7*
Oct 12-13	Advanced Backflow and Cross Connection Control*	Tacoma	ERWOW	1-800-272-5981	$15/0.7*
Oct 14	Basic Field Operations*	Mt. Vernon	WETRC	1-800-562-0858	$15/0.7*
Oct 14	Service Connections*	Bremerton	ERWOW	1-800-272-5981	$15/0.7*
Oct 14	Water System Controls, Monitoring and Alarm Basics*	Fife	WETRC	1-800-562-0858	$15/0.7*
Oct 15	Water System Controls, Monitoring and Alarm Basics*	Everett	WETRC	1-800-562-0858	$15/0.7*
Oct 18	Small Water System Management*	Centralia	WETRC	1-800-562-0858	$15/0.7*
Oct 18-19	Advanced Backflow and Cross Connection Control*	Mt. Vernon	ERWOW	1-800-272-5981	$15/0.7*
Oct 19	Water System Controls Monitoring/Alarm Basics*	Tacoma	WETRC	1-800-562-0858	$15/0.7*
Oct 20	Service Connections*	Walla Walla	ERWOW	1-800-272-5981	$15/0.7*
Oct 21-22	Advanced Backflow and Cross Connection Control*	Richland	ERWOW	1-800-272-5981	$15/0.7*
Oct 26	Anatomy of a Service Connection	Battle Ground	ERWOW	1-800-272-5981	Call/TBD
Oct 26	Potable Water Service Connections*	Battle Ground	ERWOW	1-800-272-5981	$15/0.7*
Oct 26	Service Connections*	Kennewick	ERWOW	1-800-272-5981	$15/0.7*
Oct 28	Anatomy of a Service Connection	Kennewick	ERWOW	1-800-272-5981	Call/TBD
Oct 28	Potable Water Service Connections*	Richland	ERWOW	1-800-272-5981	$15/0.7*
Oct 28	Service Connections*	Liberty Lake	ERWOW	1-800-272-5981	$15/0.7*
Nov 1-12	Backflow Assembly Tester Certification Class	Vancouver	WETRC	1-800-562-0858	$525/3.0
Nov 2	Confined Space Entry	Fife	WETRC	1-800-562-0858	$140/0.7
Nov 2	Storage Tank Disinfection	Bellingham	ERWOW	1-800-272-5981	Call/TBD
Nov 2-3	Advanced Backflow and Cross Connection Control*	Port Angeles	ERWOW	1-800-272-5981	$15/0.7*
Nov 2-4	Infrastructure Assistance Coordinating Council Conference	Wenatchee	Bill Cole	1-360-586-4125	Call/TBD
Nov 3	Storage Tank Disinfection	Oak Harbor	ERWOW	1-800-272-5981	Call/TBD
Nov 9-10	Advanced Backflow and Cross Connection Control*	Omak	ERWOW	1-800-272-5981	$15/0.7*
Nov 9	Automatic Control Valves	Spokane	ERWOW	1-800-272-5981	Call/TBD
Nov 10	Storage Tank Disinfection	Moses Lake	ERWOW	1-800-272-5981	Call/TBD
Nov 11	Storage Tank Disinfection	Chelan	ERWOW	1-800-272-5981	Call/TBD
Nov 13	Backflow Assembly Tester Certification Exam	Vancouver	WETRC	1-800-562-0858	$180/NA
Nov 15-16	Advanced Backflow and Cross Connection Control*	Bellingham	ERWOW	1-800-272-5981	$15/0.7*
Nov 16	Storage Tank Disinfection	Chehalis	ERWOW	1-800-272-5981	Call/TBD
Nov 29-Dec 2	Backflow Assembly Tester Certification Class	Pasco	WETRC	1-800-562-0858	$525/3.0
Nov 30	Storage Tank Disinfection	White Salmon	ERWOW	1-800-272-5981	Call/TBD
Dec 1	Competent Person Cave in Protection	Fife	WETRC	1-800-562-0858	$210/1.4
Dec 1-2	Advanced Backflow and Cross Connection Control*	Wenatchee	ERWOW	1-800-272-5981	$15/0.7*
Dec 2	Storage Tank Disinfection	Spokane	ERWOW	1-800-272-5981	Call/TBD
Dec 3	Backflow Assembly Tester Certification Exam	Pasco	WETRC	1-800-562-0858	$180/NA
Dec 6-8	Basic Wastewater Treatment Plant Operation	Auburn	WETRC	1-800-562-0858	$275/2.1
Dec 7-8	Advanced Backflow and Cross Connection Control*	Satsop	ERWOW	1-800-272-5981	$15/0.7*
Dec 7-9	Water Works Basics	Auburn	WETRC	1-800-562-0858	$275/2.1
Dec 9	Basic Field Operations*	Auburn	WETRC	1-800-562-0858	$15/0.7*
Dec 13	Small Water System Management*	Mt. Vernon	WETRC	1-800-562-0858	$15/0.7*
Dec 14	Water Works Basics	Fife	WETRC	1-800-562-0858	$275/2.1

**These courses are designed for small water systems serving 3,300 people or less.*

Training and Education Calendar

Date	Topics	Location	Contact	Phone #	Cost/CEU
Dec 20-22	Wastewater Laboratory Workshop	Auburn	WETRC	1-800-562-0858	$325/2.1
Jan 24-25	Wastewater Certification Examination Review	Auburn	WETRC	1-800-562-0858	$195/1.4
Mar 23-25	Wastewater Laboratory Workshop	Auburn	WETRC	1-800-562-0858	$325/2.1
Apr 4-6	Basic Wastewater Treatment Plant Operation	Auburn	WETRC	1-800-562-0858	$275/2.1
Apr 5-7	Water Works Basics	Lacey	WETRC	1-800-562-0858	$275/2.1
Apr 6-8	Water Works Basics	Auburn	WETRC	1-800-562-0858	$275/2.1
May 2-3	Wastewater Certification Examination Review	Auburn	WETRC	1-800-562-0858	$195/1.4
June 20-22	Wastewater Laboratory Workshop	Auburn	WETRC	1-800-562-0858	$325/2.1

**These courses are designed for small water systems serving 3,300 people or less.*

Additional Training Links:

AWWA King County Subsection Web site—**http://www.kcawwa.org/**

ERWOW Web site—**http://www.erwow.org/**

WETRC Web site—**http://www.wetrc.org/**

AWWA Pacific Northwest Section Web site—**http://www.pnws-awwa.org/**

EPA electronic workshops Web site—**http://www.epa.gov/safewater/dwa/electronic.html**

For the complete Training Calendar visit the Drinking Water Homepage and click on Training - www.doh.wa.gov/ehp/dw

NOTE: Links to external resources are provided as a public service, and do not imply endorsement by the Washington State Department of Health.

New & Revised Publications

Group A Public Water Systems: Chapter 246-290 WAC (331-010). Revised. A 396-page guidance document containing the Washington Administrative Code (WAC) regulations regarding Group A water systems. Also included are applicable rules from the Code of Federal Regulations (CFR).

Water Works Operator Certification Regulations (331-108). Revised. A 20-page guidance document containing WAC regulations for water works operator certification.

Water Works Certification Program Guideline (331-109). Revised. A 74-page guidance document to help water systems and operators become certified. The guide has two main sections: system certification and operator certification.

Operating Permits for Drinking Water Systems (331-168). Revised. A 2-page fact sheet for water purveyors on requirements for annual operating permits.

Operating Permit Program Plan Adequacy Table (331-257). New. A guide for decision makers in table format that can be used to determine the adequacy of Group A public water systems to provide acceptable drinking water to existing and future customers.

Office of Drinking Water Fee Schedule (331-228). Revised. A 13-page guidance document containing regulations that establish three different kinds of fees: Water System Evaluation and Project Review and Approval Fees, Water Works Certification Fees, and Drinking Water Operating Permit Fees.

Translated drinking water warnings (331-246). Correction. We found a translation error in the fourth column Thai phrase. If you downloaded this publication from our Web site for future public notification use, please make sure you go and get this corrected version.

Do not drink: Contaminated water (331-265). New. An 8 1/2" x 11" laminated poster that can be used by restaurants, campsites and other transient noncommunity (TNC) drinking water systems to warn that the water is contaminated and should not be consumed.

Do not drink: Water contaminated with nitrate (331-266). New. An 8 1/2" x 11" laminated poster that can be used by restaurants, campsites and other transient noncommunity (TNC) water systems to warn that the water is contaminated with nitrate and should not be consumed by pregnant women or infants.

Office of Drinking Water publications are available on the Internet at http://www4.doh.wa.gov/dw/publications/ or by calling (800) 521-0323.

Did you receive a water board training packet?

The Office of Drinking Water recently mailed water board training packets to 2,000 boards and commissions. If you did not receive one, and you would like to get one, please call Amy Koch at (360) 236-3164 or e-mail amy.koch@doh.wa.gov

About this issue

The following people contributed articles to this issue of Water Tap: Stephen Baker, Denise A. Clifford, Chris Gagnon, Larry Granish, Amy Koch, Denise Lahmann, Donna Lynch, Meliss Maxfield, Dick Pedlar, Sam Perry, Theresa Phillips, Jim Rioux, Paula Smith, Ginny Stern, Linda Waring (Editor), Mike Wilson and Ronni Woolrich.

The Department of Health, Office of Drinking Water, publishes Water Tap quarterly to provide information to water system owners, water works operators, and others interested in drinking water.

Mary Selecky, Secretary of Health

Janice Adair, Assistant Secretary,
Division of Environmental Health

Denise A. Clifford, Director,
Office of Drinking Water

Comments, questions, story ideas, articles and photographs submitted for publication are welcome. Please address correspondence to Editor, Water Tap, Office of Drinking Water, P.O. Box 47828, Olympia, WA 98504-7828, or e-mail linda.waring@doh.wa.gov. Past issues are available by contacting the editor or visiting the Web site at http://www.doh.wa.gov/ehp/dw/our_main_pages/watertap.htm

DOH PUB. #331-200 *printed on recycled paper*

Department of Health
Office of Drinking Water
PO Box 47822
Olympia, WA 98504-7822
1-800-521-0323

PRSRT STD
U.S. POSTAGE PAID
Washington State
Department of Printing